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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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Ms. Donna R. Searcy, Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D. C. 20554

Dear Ms. Searcy:

Enclosed are comments submitted by Sho-Me Power Electric Cooperative in regard to the Federal Communications Commission ET Docket No. 92-9.

We appreciate the opportunity to enter these comments for FCC consideration.

Sincerely,

SHO-ME POWER ELECTRIC COOPERATIVE

Thomas L. Layman

Thomas L. Layman
Communications Superintendent

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Before the

FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Redevelopment of Spectrum to	)	
Encourage Innovation in the	)	ET Docket No. 92-9
Use of New Telecommunications	)	
Technologies	)	

To: The Commission

COMMENTS OF SHO-ME POWER ELECTRIC COOPERATIVE

Pursuant to Section 1.415 of the Commission's Rules, Sho-Me Power Electric Cooperative hereby respectfully submits its comments on the Notice of Proposed Rulemaking (NPRM), FCC92-20, released February 7, 1992, in the above captioned matter.

I. Introduction

Sho-Me Power Electric Cooperative is a generation and transmission electrical power supplier operating under the jurisdiction of the Rural Electrification Administration (REA) serving approximately 175,000 meters located in a 17,250 square mile service area occupying the south central 25% of the State of Missouri. This is accomplished by supplying wholesale electrical energy to 9 rural electric distribution cooperatives, 17 municipally owned electric systems and one major military installation at Fort Leonard Wood, Mo.

The Sho-Me Power electrical network includes approximately 1500 miles of transmission line and 125 substations rated from 69 thousand volts to 345 thousand volts.

Sho-Me Power is one of six generation and transmission cooperatives that jointly make up Associated Electric Cooperative, Inc. (AECI) located at Springfield, Mo. AECI has the responsibility of being the major power supplier to these six REA G & T's. The AECI coverage is virtually state wide for the rural consumers of Missouri.

To support the Sho-Me power portion of this complex network of power lines and substations we have a 2 GHz backbone microwave system consisting of 28 stations operating in a looped configuration generally paralleling the major parts of our electrical transmission system. This communications system carries information and data essential to our needs as well as traffic relating to the operation and control of the AECI generation and power flow. We are interconnected with the microwave systems operated by the five other G & T's within the AECI group to effect statewide communications coverage for AECI's needs.

II. The 1850-2200 MHz Band Should Not Be Reallocated For The Creation of a Spectrum Reserve.

Sho-Me Power Electric Cooperative opposes a reallocation of spectrum in the 1850-2200 MHz band for the creation of a spectrum reserve for development of emerging technologies. The experience gained over the past 35 years of operation with our own communications system leads Sho-Me Power to conclude that the continuation of ownership, maintenance and operation of our entire communications network on an end to end basis is compulsory. The continuous availability of electrical energy to the critical consumers in our service area (numerous hospitals, the Fort Leonard Wood military base, factories, etc.) necessitate having the best and most reliable communications available to support and operate our power grid. In the area of safety we have had several occasions where an injured employee required immediate attention and help could be directed to his location thorough our communications net. Also, instances of high voltage lines having to be de-energized to alleviate hazardous and potentially lethal conditions have occurred and been performed by remote control operating on our microwave system.

To switch the Sho-Me Power Electric Cooperative critical communications to an alternative media would result in an exorbitant expense and/or a system of greatly reduced reliability. To install a fiber optic system with the equivalent geographic coverage we now have would cost approximately fifteen million dollars.

We feel the reliability factor is too great to be trusted to a middle supplier of communications whether it be common carrier or satellite. Our past and present experience with leased or dial up telephone lines has led us to a policy of using that mode sparingly and only as a last resort. We have had great difficulty in obtaining repairs and service in the past, especially where these lines cross service areas of different telephone companies. This is even more difficult if the problem is of an intermittent or marginal nature.

The requirement for a large number of our communication circuits to be continuous in nature would necessitate the use of leased lines between our control center at Marshfield, Mo. and the various substations involved. The number of leased circuits needed to meet this requirement for Sho-Me Power would be staggering. When the same requirements are met for AECI, to replace the circuits now supplied on the Sho-Me microwave, the number of leased line circuits needed may not even be available on common carrier.

These factors, plus the problems associated with ground potential rise during power faults and its possible destructive impact on telephone lines entering a substation environment, leads Sho-Me Power to discount common carrier as a viable option as a replacement for our microwave network.

Satellite communication also is not without drawbacks in our

application. The time required for signal propagation on a dual hop satellite scheme restricts the timing requirements of the supervisory control and data acquisition system used by the Sho-Me Power. The complexity and mixture of other circuit functions would likewise be hampered by the time delays inherent in satellite communication.

Sho-Me Power Electric Cooperative is gravely concerned about the poorly defined replacement spectrum for the displaced 2 GHz users as given in the NPRM. The mere listing of the seven bands available for relocation does not necessarily mean there is sufficient space to accommodate all the displaced users. For instance, much of the State of Missouri is within the 6 GHz "congested area" classification which means these frequencies would be more difficult to obtain, especially with several users competing for their assignments. We feel that making all fixed microwave bands above 3 GHz available to the displaced users as stated in the NPRM would result in a patchwork microwave system using a splattering of frequencies and technical requirements from different bands where the slots would be available.

Sho-Me Power operates in predominately rural and suburban territories, as does the vast majority of REA power suppliers in the United States. The likelihood that the Personal Communications Networks or other emerging technologies which would benefit from the 2 GHz relocation ever being deployed in our operating area is very remote. To cause us to vacate this spectrum, when our priority should be evident, in favor of unproven and speculative services would seem to be ill advised.

Sho-Me Power Electric Cooperative urges the Commission to consider alternate bands, such as the 2500-2690 MHz "wireless cable" band as a possible "home" for the spectrum reserve.

III. Actions To Be Taken If The 2 GHz Band Is Reallocated.

Sho-Me Power urges that if the 2 GHz band is reallocated for emerging technologies, the Commission should grant indefinite co-primary status for all existing 2 GHz microwave systems and should permit reasonable system modifications and expansions. We currently have a need to upgrade some of our existing 2 GHz stations and add at least one hop of new equipment. At this time we have all modifications and expansions on hold pending the outcome of these proceedings.

We further urge the commission to adopt rules allowing for the use of voluntary negotiations between licensed users and new service providers. In no circumstances should new services in the band be authorized on an unlicensed basis or any other basis where existing users would be unable to secure reimbursement for relocation or identify interference sources.

IV. The 1710-1850 MHz Band Should Be Made Available for Displaced 2 GHz Users.

Sho-Me Power Electric Cooperative urges the FCC and the National Telecommunications and Information Administration (NTIA) to commence discussions to open the 1710-1850 MHz Federal Government spectrum for use by displaced 2 GHz users on a co-primary, non-interference basis. Sho-Me Power could more readily move to this band where the reliability and propagation factors are similiar to the 1850-1990 MHz band. Our cost to make this move would be approximately two million dollars.

V. The FCC Should Open The 4, 6 and 11 GHz Bands For Private Microwave Use

Sho-Me Power Electric Cooperative supports the Utilities Telecommunications Council "Petition for Rulemaking" filed March 31, 1992, to make the 4 GHz, 6 GHz, and 11 GHz common carrier bands available for routine licensing in the Private Operational Microwave Service under part 94, and to adopt appropriate channeling plans and technical standards to ensure that these bands are adequate to meet the needs of existing and future private microwave systems.

VI. Conclusion

To reiterate and summarize the above comments Sho-Me Power Electric Cooperative opposes the reallocation of the 2 GHz band as a spectrum reserve. We feel that placing an unproven and discretionary use technology such as PCN above the needs of vital communications networks of utilities such as ours is not in the best interest of the public we serve.

We support the indefinite co-primary status for existing licensees and new technologies with reasonable expansion and modification actions to also retain co-primary status.

We further support a market based approach to negotiations between existing users and new technology licensees.

Wherefore, the Premises Considered, Sho-Me Power Electric Cooperative respectfully requests the Commission to consider these comments in acting on the subject Notice of Proposed Rule Making.

Respectfully submitted,
Sho-Me Power Electric Cooperative

By: Thomas L. Layman

Thomas L. Layman
Communications Superintendent

Date: June 3, 1992